

IN THE CLAIMS:

Please CANCEL claims 6-9 without prejudice to or disclaimer of the recited subject matter.

Please AMEND claims 1 and 32, as follows. For the Examiner's convenience, all claims currently pending in this application have been reproduced below:

1. (Currently Amended) A process for producing an electrophotographic photosensitive member having a layer formed of a non single crystal material[[;]], the process comprising the steps of:

as a first step, placing a cylindrical substrate having a conductive surface, in a first film-forming chamber having an evacuation means and a source gas feed means and capable of being made vacuum-aitight, and decomposing a source gas by means of a high-frequency power to deposit on the cylindrical substrate a first layer formed of a non-single-crystal material;

as a second step, taking out of the first film-forming chamber the cylindrical substrate on which the first layer has been deposited; and

as a third step, placing the cylindrical substrate on which the first layer has been deposited, in a second film-forming chamber having an evacuation means and a source gas feed means and capable of being made vacuum-aitight, and decomposing a source gas by means of a high-frequency power to deposit on the first layer a second layer comprising an upper-part blocking layer formed of a non-single-crystal material,

wherein said upper-part blocking layer comprises a non-single-crystal material composed chiefly of silicon atoms and containing at least one of carbon atoms, oxygen atoms and nitrogen atoms,

wherein said a non-single-crystal material further contains atoms capable of controlling conductivity, and

wherein said atoms capable of controlling conductivity which are contained in said upper-part blocking layer comprises an element belonging to Group 13 or Group 15 of the periodic table in a content of from 100 atomic ppm or more to 30,000 atomic ppm or less.

2. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein said first layer is made of a non-single-crystal material with silicon atoms as a matrix and containing at least one of hydrogen atoms and halogen atoms.

3. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein the step of depositing said first layer comprises depositing a silicon carbide layer formed of a non-single-crystal material containing at least carbon and silicon.

4. (Original) The electrophotographic photosensitive member production process according to claim 3, wherein said silicon carbide layer is incorporated with an element belonging to Group 13 or Group 15 of the periodic table.

5. (Original) The electrophotographic photosensitive member production process according to claim 4, wherein said element belonging to Group 13 or Group 15 of the periodic table is incorporated in said silicon carbide layer in a content of from 100 atomic ppm or more to 30,000 atomic ppm or less.

6-9. (Canceled)

10. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein said upper-part blocking layer is so formed that said upper-part blocking layer is in a thickness of at least 10^{-4} times a diameter of the largest spherical protuberance among spherical protuberances present on the surface of an unfinished electrophotographic photosensitive member after the second layer has been deposited, and in a thickness of 1 μm or less.

11. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein, in said second step, the cylindrical substrate on which the first layer has been deposited is taken out of said first film-forming chamber as it stands kept in vacuum.

12. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein, in said second step, the cylindrical substrate on which the first

layer has been deposited is first taken out of said first film-forming chamber and then exposed to a gas containing oxygen and water vapor.

13. (Original) The electrophotographic photosensitive member production process according to claim 12, wherein said gas containing oxygen and water vapor is the atmosphere.

14. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein said third step comprises the step of further depositing a surface layer on said upper-part blocking layer.

15. (Original) The electrophotographic photosensitive member production process according to claim 14, wherein said surface layer comprises a non-single-crystal material composed chiefly of silicon atoms and containing at least one of carbon atoms, oxygen atoms and nitrogen atoms.

16. (Original) The electrophotographic photosensitive member production process according to claim 14, wherein said surface layer comprises a non-single-crystal material composed chiefly of carbon atoms.

17. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein said first film-forming chamber is of a plasma-assisted CVD system employing a VHF band in high-frequency power.

18. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein said second film-forming chamber is of a plasma-assisted CVD system employing an RF band in high-frequency power.

19. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein at least a first region of a photoconductive layer is deposited as said first layer, and at least a second region of the photoconductive layer and said upper-part blocking layer are deposited as said second layer.

20. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein said second step further comprises a step of working the surface of said first layer.

21. (Original) The electrophotographic photosensitive member production process according to claim 20, wherein said step of working the surface of said first layer is a step of removing at least hill portions of protuberances present on the surface of the first layer having been deposited in said first step.

22. (Original) The electrophotographic photosensitive member production process according to claim 20, wherein said step of working the surface of said first layer is a step of polishing.

23. (Original) The electrophotographic photosensitive member production process according to claim 22, wherein said polishing is to polish the protuberances present on the surface of the first layer having been deposited in said first step, to make the surface flat.

24. (Original) The electrophotographic photosensitive member production process according to claim 22, wherein said polishing is carried out by bringing a polishing tape into contact with the surface of said first layer having been deposited in said first step, by means of an elastic rubber roller, providing a relative difference in speed between a rotational-movement speed of the first-layer surface rotationally moved together with said cylindrical substrate and a rotational-movement speed of the elastic rubber roller which brings the polishing tape into contact with that surface.

25. (Original) The electrophotographic photosensitive member production process according to claim 22, wherein said polishing is so applied as to work the outermost surface of said first layer to have an arithmetic mean roughness Ra measured in a visual field of $10 \mu\text{m} \times 10 \mu\text{m}$ of 25 nm or less.

26. (Original) The electrophotographic photosensitive member production process according to claim 20, wherein the step of working the surface of said first layer is a step of plasma etching.

27. (Original) The electrophotographic photosensitive member production process according to claim 16, wherein the step of depositing said surface layer is carried out in a third film-forming chamber having an evacuation means and a source gas feed means and capable of being made vacuum-aitight.

28. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein, in said second step, an unfinished photosensitive member with said first layer deposited thereon is subjected to inspection.

29. (Original) The electrophotographic photosensitive member production process according to claim 1, wherein, in said second step, before said third step is carried out, the surface of said first layer is brought into contact with water to carry out cleaning.

30. (Original) An electrophotographic photosensitive member produced by the process according to claim 1.

31. (Original) An electrophotographic apparatus which makes use of the electrophotographic photosensitive member according to claim 30.

32. (Currently Amended) An electrophotographic photosensitive member comprising:

- a cylindrical substrate having a conductive surface;
- a first layer comprising a photoconductive layer; and
- a second layer comprising an upper-part blocking layer formed of a non-single-crystal material composed chiefly of silicon atoms and containing an element belonging to Group 13 or Group 15 of the periodic table[[;]],

 said first layer being a layer from which hill portions of spherical protuberances present on its surface have been removed,

wherein said upper-part blocking layer comprises a non-single-crystal material composed chiefly of silicon atoms and containing at least one of carbon atoms, oxygen atoms and nitrogen atoms, and

wherein said element belonging to Group 13 or Group 15 of the periodic table is incorporated in said upper-part blocking layer in a content of from 100 atomic ppm or more to 30,000 atomic ppm or less.

33. (Original) An electrophotographic photosensitive member according to claim 32, wherein said upper-part blocking layer is in a thickness of at least 10^{-4} times a diameter of the

largest spherical protuberance among protuberances present on the surface of said first layer, and in a thickness of 1 μm or less.

34. (Original) An electrophotographic photosensitive member according to claim 32, wherein said first layer comprises a lower part blocking layer formed of a non-single-crystal material composed chiefly of silicon atoms and containing an element belonging to Group 13 or Group 15 of the periodic table.

35. (Original) An electrophotographic photosensitive member according to claim 32, wherein said second layer comprises a surface layer formed of a non-single-crystal silicon carbide or a surface layer formed of a non-single-crystal carbon.